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 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2           "Ask CAS" for self-help around the clock
 NEWS  3  SEP 09   CA/CAplus records now contain indexing from 1907 to the
                   present
 NEWS  4  DEC 08   INPADOC: Legal Status data reloaded
 NEWS  5  SEP 29   DISSABS now available on STN
 NEWS  6  OCT 10   PCTFULL: Two new display fields added
 NEWS  7  OCT 21   BIOSIS file reloaded and enhanced
 NEWS  8  OCT 28   BIOSIS file segment of TOXCENTER reloaded and enhanced
 NEWS  9  NOV 24   MSDS-CCOHS file reloaded
 NEWS 10  DEC 08   CABA reloaded with left truncation
 NEWS 11  DEC 08   IMS file names changed
 NEWS 12  DEC 09   Experimental property data collected by CAS now available
                   in REGISTRY
 NEWS 13  DEC 09   STN Entry Date available for display in REGISTRY and CA/CAplus
 NEWS 14  DEC 17   DGENE: Two new display fields added
 NEWS 15  DEC 18   BIOTECHNO no longer updated
 NEWS 16  DEC 19   CROPU no longer updated; subscriber discount no longer
                   available
 NEWS 17  DEC 22   Additional INPI reactions and pre-1907 documents added to CAS
                   databases
 NEWS 18  DEC 22   IFIPAT/IFIUDB/IFICDB reloaded with new data and search fields
 NEWS 19  DEC 22   ABI-INFORM now available on STN
 NEWS 20  JAN 27   Source of Registration (SR) information in REGISTRY updated
                   and searchable
 NEWS 21  JAN 27   A new search aid, the Company Name Thesaurus, available in
                   CA/CAplus
 NEWS 22  FEB 05   German (DE) application and patent publication number format
                   changes
 NEWS 23  MAR 03   MEDLINE and LMEDLINE reloaded
 NEWS 24  MAR 03   MEDLINE file segment of TOXCENTER reloaded
 NEWS 25  MAR 03   FRANCEPAT now available on STN

 NEWS EXPRESS  MARCH 5 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
               MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
               AND CURRENT DISCOVER FILE IS DATED 3 MARCH 2004
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
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FILE 'HOME' ENTERED AT 15:42:06 ON 24 MAR 2004

=> file medline, biosis, wpids, uspatful, dgene, embase,

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'MEDLINE' ENTERED AT 15:42:26 ON 24 MAR 2004

FILE 'BIOSIS' ENTERED AT 15:42:26 ON 24 MAR 2004
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FILE 'WPIDS' ENTERED AT 15:42:26 ON 24 MAR 2004
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=> s holophycobiliprotein
L1 4 HOLOPHYCOBILIPROTEIN

=> s ?phycobiliprotein?
LEFT TRUNCATION IGNORED FOR '?PHYCOBILIPROTEIN?' FOR FILE 'DGENE'
L2 1971 ?PHYCOBILIPROTEIN?
Left truncation is not valid in the specified search field in the specified file. The term has been searched without left truncation. Examples: '?TERPEN?' would be searched as 'TERPEN?' and '?FLAVONOID' would be searched as 'FLAVONOID.'

If you are searching in a field that uses implied proximity, and you used a truncation symbol after a punctuation mark, the system may interpret the truncation symbol as being at the beginning of a term. Implied proximity is used in search fields indexed as single words, for example, the Basic Index.

=> d l1 ti abs ibib tot

L1 ANSWER 1 OF 4 MEDLINE on STN
TI Biosynthesis of a fluorescent cyanobacterial C-phycocyanin holo-alpha subunit in a heterologous host.
AB The entire pathway for the synthesis of a fluorescent **holophycobiliprotein** subunit from a photosynthetic cyanobacterium (Synechocystis sp. PCC6803) was reconstituted in Escherichia coli. Cyanobacterial genes encoding enzymes required for the conversion of heme to the natural chromophore 3Z-phycocyanobilin, namely, heme oxygenase 1 and 3Z-phycocyanobilin:ferredoxin oxidoreductase, were expressed from a plasmid under control of the hybrid trp-lac (trc) promoter. Genes for the apoprotein (C-phycocyanin alpha subunit; cpcA) and the heterodimeric lyase (cpcE and cpcF) that catalyzes chromophore attachment were expressed from the trc promoter on a second plasmid. Upon induction, recombinant E. coli used the cellular pool of heme to produce holo-CpcA with spectroscopic properties qualitatively and quantitatively similar to those of the same protein produced endogenously in cyanobacteria. About a third of the

apo-CpcA was converted to holo-CpcA. No significant bilin addition took place in a similarly engineered E. coli strain that lacks cpcE and cpcF. This approach should permit incisive analysis of many remaining questions in phycobiliprotein biosynthesis. These studies also demonstrate the feasibility of generating constructs of these proteins in situ for use as fluorescent protein probes in living cells.

ACCESSION NUMBER: 2001504133 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11553806
TITLE: Biosynthesis of a fluorescent cyanobacterial C-phycocyanin holo-alpha subunit in a heterologous host.
AUTHOR: Tooley A J; Cai Y A; Glazer A N
CORPORATE SOURCE: Department of Molecular and Cell Biology, University of California, 142 LSA no. 3200, Berkeley, CA 94720-3200, USA.
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (2001 Sep 11) 98 (19) 10560-5. Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200111
ENTRY DATE: Entered STN: 20010913
Last Updated on STN: 20011105
Entered Medline: 20011101

L1 ANSWER 2 OF 4 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Biosynthesis of a fluorescent cyanobacterial C-phycocyanin holo-alpha subunit in a heterologous host.
AB The entire pathway for the synthesis of a fluorescent **holophycobiliprotein** subunit from a photosynthetic cyanobacterium (Synechocystis sp. PCC6803) was reconstituted in Escherichia coli. Cyanobacterial genes encoding enzymes required for the conversion of heme to the natural chromophore 3Z-phycocyanobilin, namely, heme oxygenase 1 and 3Z-phycocyanobilin:ferredoxin oxidoreductase, were expressed from a plasmid under control of the hybrid trp-lac (trc) promoter. Genes for the apoprotein (C-phycocyanin alpha subunit; cpcA) and the heterodimeric lyase (cpcE and cpcF) that catalyzes chromophore attachment were expressed from the trc promoter on a second plasmid. Upon induction, recombinant E. coli used the cellular pool of heme to produce holo-CpcA with spectroscopic properties qualitatively and quantitatively similar to those of the same protein produced endogenously in cyanobacteria. About a third of the apo-CpcA was converted to holo-CpcA. No significant bilin addition took place in a similarly engineered E. coli strain that lacks cpcE and cpcF. This approach should permit incisive analysis of many remaining questions in phycobiliprotein biosynthesis. These studies also demonstrate the feasibility of generating constructs of these proteins in situ for use as fluorescent protein probes in living cells.

ACCESSION NUMBER: 2001:482056 BIOSIS
DOCUMENT NUMBER: PREV200100482056
TITLE: Biosynthesis of a fluorescent cyanobacterial C-phycocyanin holo-alpha subunit in a heterologous host.
AUTHOR(S): Tooley, Aaron J.; Cai, Yuping A.; Glazer, Alexander N. [Reprint author]
CORPORATE SOURCE: Natural Reserve System, University of California System, 1111 Franklin Street, 6th Floor, Oakland, CA, 94607-5200, USA
alexander.glazer@ucop.edu
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (September 11, 2001) Vol. 98, No. 19, pp. 10560-10565. print.
CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 17 Oct 2001

Last Updated on STN: 23 Feb 2002

L1 ANSWER 3 OF 4 USPATFULL on STN
TI Engineering of living cells for the expression of holo-phycobiliprotein-based constructs
AB Recombinant cells which express a fluorescent holo-phycobiliprotein fusion protein and methods of use are described. The cells comprises a bilin, a recombinant bilin reductase, an apo-phycobiliprotein fusion protein precursor of the fusion protein comprising a corresponding apo-phycobiliprotein domain, and a recombinant phycobiliprotein domain-bilin lyase, which components react to form the holo-phycobiliprotein fusion protein. Also described are holo-phycobiliprotein based transcription reporter cells and assays, which cells conditionally express a heterologous-to-the-cell, fluorescent, first holo-phycobiliprotein domain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2003:37640 USPATFULL
TITLE: Engineering of living cells for the expression of holo-phycobiliprotein-based constructs
INVENTOR(S): Glazer, Alexander N., Berkeley, CA, UNITED STATES
Tooley, Aaron J., Berkeley, CA, UNITED STATES
Cai, Yuping, Carmel, IN, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003027285	A1	20030206
APPLICATION INFO.:	US 2001-919486	A1	20010731 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: RICHARD ARON OSMAN, SCIENCE AND TECHNOLOGY LAW GROUP, 75 DENISE DRIVE, HILLSBOROUGH, CA, 94010
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 918
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L1 ANSWER 4 OF 4 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Biosynthesis of a fluorescent cyanobacterial C-phycocyanin holo-α subunit in a heterologous host.
AB The entire pathway for the synthesis of a fluorescent **holophycobiliprotein** subunit from a photosynthetic cyanobacterium (Synechocystis sp. PCC6803) was reconstituted in Escherichia coli. Cyanobacterial genes encoding enzymes required for the conversion of heme to the natural chromophore 3Z-phycocyanobilin, namely, heme oxygenase 1 and 3Z-phycocyanobilin:ferredoxin oxidoreductase, were expressed from a plasmid under control of the hybrid trp-lac (trc) promoter. Genes for the apoprotein (C-phycocyanin α subunit; cpcA) and the heterodimeric lyase (cpcE and cpcF) that catalyzes chromophore attachment were expressed from the trc promoter on a second plasmid. Upon induction, recombinant E. coli used the cellular pool of heme to produce holo-CpcA with spectroscopic properties qualitatively and quantitatively similar to those of the same protein produced endogenously in cyanobacteria. About a third of the apo-CpcA was converted to holo-CpcA. No significant bilin addition took place in a similarly engineered E. coli strain that lacks cpcE and cpcF. This approach should permit incisive analysis of many remaining questions in phycobiliprotein biosynthesis. These studies also demonstrate the feasibility of generating constructs of these proteins in situ for use as fluorescent protein probes in living cells.
ACCESSION NUMBER: 2001329835 EMBASE
TITLE: Biosynthesis of a fluorescent cyanobacterial C-phycocyanin holo-α subunit in a heterologous host.

AUTHOR: Tooley A.J.; Cai Y.A.; Glazer A.N.
CORPORATE SOURCE: A.N. Glazer, Natural Reserve System, University of California System, 1111 Franklin Street, Oakland, CA 94607-5200, United States. alexander.glazer@ucop.edu
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (11 Sep 2001) 98/19 (10560-10565).
Refs: 30
ISSN: 0027-8424 CODEN: PNASA6
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
LANGUAGE: English
SUMMARY LANGUAGE: English

=> d his

(FILE 'HOME' ENTERED AT 15:42:06 ON 24 MAR 2004)

FILE 'MEDLINE, BIOSIS, WPIDS, USPATFULL, DGENE, EMBASE' ENTERED AT 15:42:26 ON 24 MAR 2004
L1 4 S HOLOPHYCOBILIPROTEIN
L2 1971 S ?PHYCOBILIPROTEIN?

=> s l2 and fusion protein
L3 132 L2 AND FUSION PROTEIN

=> s l3 and fluorescent
L4 124 L3 AND FLUORESCENT

=> s l4 and heme oxygenase
L5 4 L4 AND HEME OXYGENASE

=> d l5 ti abs ibib tot

L5 ANSWER 1 OF 4 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
TI New recombinant cell comprising a heterologous-to-the-cell, **fluorescent**, first holo-**phycobiliprotein** domain fused a heterologous protein domain, useful for expressing a holo-**phycobiliprotein fusion protein**.
AN 2003-466144 [44] WPIDS
AB US2003027285 A UPAB: 20030710
NOVELTY - A recombinant cell expressing a holo-**phycobiliprotein fusion protein** comprising a heterologous-to-the-cell, **fluorescent**, first holo-**phycobiliprotein** domain fused a heterologous protein domain, is new.
DETAILED DESCRIPTION - A recombinant cell expressing a holo-**phycobiliprotein fusion protein** comprising a heterologous-to-the-cell, **fluorescent**, first holo-**phycobiliprotein** domain fused a heterologous protein domain. The cell makes and comprises components such as a bilin, a recombinant bilin reductase, an apo-**phycobiliprotein fusion protein** precursor of the **fusion protein** comprising a corresponding apo-**phycobiliprotein** domain, and a recombinant **phycobiliprotein** domain-bilin lyase, which components react inside the cell to form the holo-**phycobiliprotein fusion protein**.
An INDEPENDENT CLAIM is also included for making a holo-**phycobiliprotein fusion protein** by growing the cell under conditions where the cell expresses the holo-**phycobiliprotein fusion protein**.
USE - The cells are useful for expressing holo-**phycobiliprotein**-based constructs, useful in enzymology and

chemistry of **phycobiliprotein** synthesis. The **phycobiliproteins** are useful as in vivo **fluorescent** protein probes.
Dwg.0/3

ACCESSION NUMBER: 2003-466144 [44] WPIDS
DOC. NO. NON-CPI: N2003-370782
DOC. NO. CPI: C2003-124291
TITLE: New recombinant cell comprising a heterologous-to-the-cell, **fluorescent**, first holo-**phycobiliprotein** domain fused a heterologous protein domain, useful for expressing a holo-**phycobiliprotein fusion protein**
.
DERWENT CLASS: B04 D16 P13 S03
INVENTOR(S): CAI, Y; GLAZER, A N; TOOLEY, A J
PATENT ASSIGNEE(S): (CAIY-I) CAI Y; (GLAZ-I) GLAZER A N; (TOOL-I) TOOLEY A J; (REGC) UNIV CALIFORNIA
COUNTRY COUNT: 100
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003027285	A1	20030206	(200344)*		13
WO 2003012448	A1	20030213	(200344)	EN	

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003027285	A1	US 2001-919486	20010731
WO 2003012448	A1	WO 2002-US24245	20020730

PRIORITY APPLN. INFO: US 2001-919486 20010731

L5 ANSWER 2 OF 4 USPATFULL on STN
TI HY2 family of bilin reductases
AB This invention identifies a novel family of bilin reductases. Designated herein HY bilin reductases, the enzymes of this invention are useful in a wide variety of contexts including but not limited to the conversion of biliverdins to phytobilins and the assembly of holophytochromes or phytofluors.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2003:152713 USPATFULL
TITLE: HY2 family of bilin reductases
INVENTOR(S): Lagarias, John Clark, Davis, CA, UNITED STATES
Kochi, Takayuki, Ikoma, JAPAN
Frankenberg, Nicole, Davis, CA, UNITED STATES
Gambetta, Gregory A., Davis, CA, UNITED STATES
Montgomery, Beronda L., Bloomington, IN, UNITED STATES
PATENT ASSIGNEE(S): The Regents of the University of California (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003104379	A1	20030605	
APPLICATION INFO.:	US 2001-870406	A1	20010529	(9)

09/919,486

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-271758P	20010226 (60)
	US 2000-210286P	20000608 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501
NUMBER OF CLAIMS: 79
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 23 Drawing Page(s)
LINE COUNT: 4474
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 3 OF 4 USPATFULL on STN
TI Light controlled gene expression utilizing heterologous phytochromes
AB This invention relates to the field of gene expression. In particular this invention relates to the use of heterologous phytochromes to translocate polypeptides into the nucleus of a cell. Where the polypeptides comprise transactivators or repressors this invention provides a system for light-directed gene expression.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2003:106324 USPATFULL
TITLE: Light controlled gene expression utilizing heterologous phytochromes
INVENTOR(S): Lagarias, John Clark, Davis, CA, UNITED STATES
Kochi, Takayuki, Daigakusyuku sya, JAPAN
Frankenberg, Nicole, Davis, CA, UNITED STATES
Gambetta, Gregory A., Davis, CA, UNITED STATES
Montgomery, Beronda L., Bloomington, IN, UNITED STATES
PATENT ASSIGNEE(S): The Regents of the University of California (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003073235	A1	20030417	
APPLICATION INFO.:	US 2002-159901	A1	20020529	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-294463P	20010529 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 20 Drawing Page(s)
LINE COUNT: 4485
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 4 OF 4 USPATFULL on STN
TI Engineering of living cells for the expression of holo-**phycobiliprotein**-based constructs
AB Recombinant cells which express a **fluorescent** holo-**phycobiliprotein fusion protein** and methods of use are described. The cells comprises a bilin, a recombinant bilin reductase, an apo-**phycobiliprotein fusion protein** precursor of the **fusion protein** comprising a corresponding apo-**phycobiliprotein** domain, and a recombinant **phycobiliprotein** domain-bilin lyase, which components react to form the holo-**phycobiliprotein**

fusion protein. Also described are holo-**phycobiliprotein** based transcription reporter cells and assays, which cells conditionally express a heterologous-to-the-cell, **fluorescent**, first holo-**phycobiliprotein** domain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2003:37640 USPATFULL		
TITLE:	Engineering of living cells for the expression of holo-**phycobiliprotein**-based constructs		
INVENTOR(S):	Glazer, Alexander N., Berkeley, CA, UNITED STATES Tooley, Aaron J., Berkeley, CA, UNITED STATES Cai, Yuping, Carmel, IN, UNITED STATES		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003027285	A1	20030206
APPLICATION INFO.:	US 2001-919486	A1	20010731 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	RICHARD ARON OSMAN, SCIENCE AND TECHNOLOGY LAW GROUP, 75 DENISE DRIVE, HILLSBOROUGH, CA, 94010		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	918		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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=> d his

     (FILE 'HOME' ENTERED AT 15:42:06 ON 24 MAR 2004)

     FILE 'MEDLINE, BIOSIS, WPIDS, USPATFULL, DGENE, EMBASE' ENTERED AT
     15:42:26 ON 24 MAR 2004
L1             4 S HOLOPHYCOBILIPROTEIN
L2          1971 S ?PHYCOBILIPROTEIN?
L3           132 S L2 AND FUSION PROTEIN
L4           124 S L3 AND FLUORESCENT
L5             4 S L4 AND HEME OXYGENASE

=> s PCB
L6         78369 PCB

=> s PcyA
L7            27 PCYA

=> s l6 and l7
L8            13 L6 AND L7

=> s CpcE
L9            52 CPCE

=> s CpcF
L10           55 CPCF

=> s l9 and l10
L11           34 L9 AND L10

=> s l8 and l11
L12            2 L8 AND L11

=> d l12 ti abs ibib tot

L12  ANSWER 1 OF 2  WPIDS  COPYRIGHT 2004 THOMSON DERWENT on STN
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TI New recombinant cell comprising a heterologous-to-the-cell, fluorescent, first holo-phycobiliprotein domain fused a heterologous protein domain, useful for expressing a holo-phycobiliprotein fusion protein.
AN 2003-466144 [44] WPIDS
AB US2003027285 A UPAB: 20030710
NOVELTY - A recombinant cell expressing a holo-phycobiliprotein fusion protein comprising a heterologous-to-the-cell, fluorescent, first holo-phycobiliprotein domain fused a heterologous protein domain, is new.

DETAILED DESCRIPTION - A recombinant cell expressing a holo-phycobiliprotein fusion protein comprising a heterologous-to-the-cell, fluorescent, first holo-phycobiliprotein domain fused a heterologous protein domain. The cell makes and comprises components such as a bilin, a recombinant bilin reductase, an apo-phycobiliprotein fusion protein precursor of the fusion protein comprising a corresponding apo-phycobiliprotein domain, and a recombinant phycobiliprotein domain-bilin lyase, which components react inside the cell to form the holo-phycobiliprotein fusion protein.

An INDEPENDENT CLAIM is also included for making a holo-phycobiliprotein fusion protein by growing the cell under conditions where the cell expresses the holo-phycobiliprotein fusion protein.

USE - The cells are useful for expressing holo-phycobiliprotein-based constructs, useful in enzymology and chemistry of phycobiliprotein synthesis. The phycobiliproteins are useful as in vivo fluorescent protein probes.

Dwg.0/3

ACCESSION NUMBER: 2003-466144 [44] WPIDS
DOC. NO. NON-CPI: N2003-370782
DOC. NO. CPI: C2003-124291
TITLE: New recombinant cell comprising a heterologous-to-the-cell, fluorescent, first holo-phycobiliprotein domain fused a heterologous protein domain, useful for expressing a holo-phycobiliprotein fusion protein.
DERWENT CLASS: B04 D16 P13 S03
INVENTOR(S): CAI, Y; GLAZER, A N; TOOLEY, A J
PATENT ASSIGNEE(S): (CAIY-I) CAI Y; (GLAZ-I) GLAZER A N; (TOOL-I) TOOLEY A J; (REGC) UNIV CALIFORNIA
COUNTRY COUNT: 100
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003027285	A1	20030206	(200344)*		13
WO 2003012448	A1	20030213	(200344)	EN	

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003027285	A1	US 2001-919486	20010731
WO 2003012448	A1	WO 2002-US24245	20020730

PRIORITY APPLN. INFO: US 2001-919486 20010731

L12 ANSWER 2 OF 2 USPATFULL on STN
TI Engineering of living cells for the expression of holo-phycobiliprotein-based constructs
AB Recombinant cells which express a fluorescent holo-phycobiliprotein

fusion protein and methods of use are described. The cells comprises a bilin, a recombinant bilin reductase, an apo-phycobiliprotein fusion protein precursor of the fusion protein comprising a corresponding apo-phycobiliprotein domain, and a recombinant phycobiliprotein domain-bilin lyase, which components react to form the holo-phycobiliprotein fusion protein. Also described are holo-phycobiliprotein based transcription reporter cells and assays, which cells conditionally express a heterologous-to-the-cell, fluorescent, first holo-phycobiliprotein domain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2003:37640 USPATFULL
TITLE:	Engineering of living cells for the expression of holo-phycobiliprotein-based constructs
INVENTOR(S):	Glazer, Alexander N., Berkeley, CA, UNITED STATES Tooley, Aaron J., Berkeley, CA, UNITED STATES Cai, Yuping, Carmel, IN, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003027285	A1	20030206	
APPLICATION INFO.:	US 2001-919486	A1	20010731	(9)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	RICHARD ARON OSMAN, SCIENCE AND TECHNOLOGY LAW GROUP, 75 DENISE DRIVE, HILLSBOROUGH, CA, 94010
NUMBER OF CLAIMS:	24
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	3 Drawing Page(s)
LINE COUNT:	918

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 15:42:06 ON 24 MAR 2004)

FILE 'MEDLINE, BIOSIS, WPIDS, USPATFULL, DGENE, EMBASE' ENTERED AT 15:42:26 ON 24 MAR 2004

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L1            4 S HOLOPHYCOBILIPROTEIN
L2         1971 S ?PHYCOBILIPROTEIN?
L3          132 S L2 AND FUSION PROTEIN
L4          124 S L3 AND FLUORESCENT
L5            4 S L4 AND HEME OXYGENASE
L6        78369 S PCB
L7           27 S PCYA
L8           13 S L6 AND L7
L9           52 S CPCE
L10          55 S CPCF
L11          34 S L9 AND L10
L12           2 S L8 AND L11

=> s l2 and E. coli
L13         243 L2 AND E. COLI

=> s l7 and l13
L14           3 L7 AND L13

=> d l14 ti abs ibib tot

L14  ANSWER 1 OF 3  USPATFULL on STN
TI     HY2 family of bilin reductases
AB     This invention identifies a novel family of bilin reductases. Designated
       herein HY bilin reductases, the enzymes of this invention are useful in
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a wide variety of contexts including but not limited to the conversion of biliverdins to phytobilins and the assembly of holophytochromes or phytofluors.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2003:152713 USPATFULL
TITLE:	HY2 family of bilin reductases
INVENTOR(S):	Lagarias, John Clark, Davis, CA, UNITED STATES Kochi, Takayuki, Ikoma, JAPAN Frankenberg, Nicole, Davis, CA, UNITED STATES Gambetta, Gregory A., Davis, CA, UNITED STATES Montgomery, Beronda L., Bloomington, IN, UNITED STATES
PATENT ASSIGNEE(S):	The Regents of the University of California (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003104379	A1	20030605	
APPLICATION INFO.:	US 2001-870406	A1	20010529	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-271758P	20010226 (60)
	US 2000-210286P	20000608 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501
NUMBER OF CLAIMS:	79
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	23 Drawing Page(s)
LINE COUNT:	4474

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 2 OF 3 USPATFULL on STN

TI Light controlled gene expression utilizing heterologous phytochromes

AB This invention relates to the field of gene expression. In particular this invention relates to the use of heterologous phytochromes to translocate polypeptides into the nucleus of a cell. Where the polypeptides comprise transactivators or repressors this invention provides a system for light-directed gene expression.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2003:106324 USPATFULL
TITLE:	Light controlled gene expression utilizing heterologous phytochromes
INVENTOR(S):	Lagarias, John Clark, Davis, CA, UNITED STATES Kochi, Takayuki, Daigakusyuku sya, JAPAN Frankenberg, Nicole, Davis, CA, UNITED STATES Gambetta, Gregory A., Davis, CA, UNITED STATES Montgomery, Beronda L., Bloomington, IN, UNITED STATES
PATENT ASSIGNEE(S):	The Regents of the University of California (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003073235	A1	20030417	
APPLICATION INFO.:	US 2002-159901	A1	20020529	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-294463P	20010529 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION

LEGAL REPRESENTATIVE: QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 20 Drawing Page(s)
LINE COUNT: 4485
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 3 OF 3 USPATFULL on STN
TI Engineering of living cells for the expression of holo-**phycobiliprotein**-based constructs
AB Recombinant cells which express a fluorescent holo-**phycobiliprotein** fusion protein and methods of use are described. The cells comprises a bilin, a recombinant bilin reductase, an apo-**phycobiliprotein** fusion protein precursor of the fusion protein comprising a corresponding apo-**phycobiliprotein** domain, and a recombinant **phycobiliprotein** domain-bilin lyase, which components react to form the holo-**phycobiliprotein** fusion protein. Also described are holo-**phycobiliprotein** based transcription reporter cells and assays, which cells conditionally express a heterologous-to-the-cell, fluorescent, first holo-**phycobiliprotein** domain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2003:37640 USPATFULL
TITLE: Engineering of living cells for the expression of holo-**phycobiliprotein**-based constructs
INVENTOR(S): Glazer, Alexander N., Berkeley, CA, UNITED STATES
Tooley, Aaron J., Berkeley, CA, UNITED STATES
Cai, Yuping, Carmel, IN, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003027285	A1	20030206
APPLICATION INFO.:	US 2001-919486	A1	20010731 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: RICHARD ARON OSMAN, SCIENCE AND TECHNOLOGY LAW GROUP, 75 DENISE DRIVE, HILLSBOROUGH, CA, 94010
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 918
CAS INDEXING IS AVAILABLE FOR THIS PATENT.